

Weihong Li

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EDUCATION

Southern Methodist University, Dallas, TX

Ph.D. Economics, *expected* May 2025

Dissertation Title: Essays on Development Economics, Political Economy, and Applied Microeconomics

Dissertation Committee: Klaus Desmet (Chair), Ömer Özak, Wookun Kim

Southern Methodist University, Dallas, TX

M.A. Economics, Dec 2022

University of Wisconsin-Madison, Madison, WI

B.S. Economics and Mathematics (with honors), May 2019

RESEARCH INTERESTS

Development Economics, Political Economy, Applied Microeconomics

WORKING PAPERS

“Pollution, Promotion, and Political Showcase” (Job Market Paper)

This paper explores the strategic behavior of provincial leaders in response to the visits by central government leaders in China by examining changes in air quality during such visits. I find that a prefecture’s PM2.5 levels tend to decrease during the president’s visits but increase during the premier’s visits. These variations are correlated with the visitors’ scopes of responsibility, as well as the provincial leaders’ personal characteristics and connections with the visitors. Meanwhile, provincial leaders do not compensate for economic losses by increasing production following the president’s visits, nor do they sharply reduce pollution after the premier’s visits. This strategic behavior is not strongly associated with a prefecture’s yearly average PM2.5 level or share of the workforce in the secondary sector. Furthermore, the effect of visits is significant on PM2.5 levels but not on PM10 levels in many cases. Since PM10 has more natural sources than PM2.5, this result supports the possibility of human manipulation of air quality. Finally, I conclude that acting strategically during the visits by central government leaders has a positive but insignificant impact on a politician’s promotion.

“Cultural Norms, Fertility, and Missing Women: Evidence from the Ghost Festival”

Do cultural norms associated with Confucianism contribute to higher fertility rates and male-to-female ratios at birth in contemporary China, given their emphasis on reproduction, male dominance, and son preference? To overcome the challenge of quantifying cultural norms, I construct an innovative proxy for Confucian norms by estimating the amount of joss paper burned during Ghost Festival celebrations. This approach builds on the observation that Confucian adherents commonly burn joss paper on the Ghost Festival as a symbolic way to transfer money to deceased ancestors. The amount of joss paper burned is approximated using daily PM2.5 and meteorological data. My findings indicate that in counties where Confucian norms are more prevalent, both fertility rates and male-to-female ratios at birth are significantly higher. The results remain robust after instrumenting Confucian norms with the amount of firecrackers and fireworks burned during Spring Festival celebrations, as well as a series of robustness checks and placebo tests.

RESEARCH IN PROGRESS

“Foreign Investments and the Formation of Ethnic Enclaves: What is the Economics Behind?”

Proposal presented at the SMU Macroeconomic Workshop (Dec 2023)

HONORS AND GRANTS

- SMU Dedman College Interdisciplinary Institute (DCII) Summer Research and Writing Fellowship 2024 (\$3,000)
- SMU Provost's Doctoral Candidacy Fellowship 2023-2025 (\$31,000 per year)
- SMU Research and Professional Development Award 2023 (\$750)
- SMU Graduate Student Travel Grant 2023 (\$750)
- Committee on the Status of Women in the Economics Profession (CSWEP) Travel Grant 2022 (\$700)
- SMU Full Tuition Scholarship and Teaching Assistantship Award 2019-2023 (\$18,000 per year)
- UW-Madison Trewartha Honors Research Grant 2018 (\$2,000)
- UW-Madison George Enfield Frazer Jr. Scholarship 2017 (\$1,500)
- Successful Participant at Mathematical Contest in Modeling 2016

PROFESSIONAL EXPERIENCE

Southern Methodist University, Dallas, TX, 2019-2025

Doctoral Researcher, Department of Economics

- Study the strategic behavior of regional officials in response to the visits by central government leaders in China using variations in PM2.5 levels during these visits.
- Study the impact of cultural norms on the spatial heterogeneity of fertility choices and sex-selective abortions in contemporary China.
- Study the impact of foreign investment on the formation of ethnic enclaves in the United States.
- Obtain China's daily prefecture-level and county-level data on PM2.5, PM10, and thermal inversions from satellite images provided by NASA's MERRA-2 product using R.
- Calculate China's yearly county-level nighttime light intensity, a proxy for economic prosperity, based on NOAA's DMSP-OLS Nighttime Lights Time Series and a composition of monthly NPP-VIIRS NTL Time Series.
- Calculate China's county-level terrain ruggedness, a proxy for geographic accessibility, based on NASA's ASTER Global Digital Elevation Model version 3.
- Measure the distances between each county-level division in China and its nearest port using R.

Southern Methodist University, Dallas, TX, 2019-2025

Research Assistant, Department of Economics

- Assist with the research of Dr. Klaus Desmet (<https://people.smu.edu/kdesmet/research/>).

United Nations Economic and Social Commission for Asia and the Pacific, Bangkok, Thailand, 2023

Economic Affairs Intern, Trade, Investment & Innovation Division

- Built empirical models and wrote Stata scripts to quantitatively analyze the influence of digital trade, infrastructure, and services on achieving the UN's Sustainable Development Goals. Methodologies included OLS-FE, OLS with lags, one/two-step difference GMM, one/two-step system GMM, and 2SLS.
- Wrote an essay specifying the models, including a comparison with those applied in other papers.
- Conducted literature reviews and wrote essays on the impact of digital trade, infrastructure, and services on poverty alleviation, environmental protection, disaster reduction, climate change, education access, public health, and women empowerment. The essays have been incorporated into the Asia-Pacific Trade and Investment Report 2023-2024: Unleashing Digital Trade and Investment for Sustainable Development (<https://www.unescap.org/kp/APTIR2023>).
- Updated and maintained DigiSRII database, which stores country-level data for digital trade studies. Updated R scripts used to generate key variables, along with a manual explaining how to access and download the DigiSRII database.

State Information Center Affiliated with the National Development and Reform Commission, Beijing, China, 2019

Research Intern

- Estimated the impact of opening the North Sea Route on trade among countries along China's Belt & Road Initiative using Global Forest Products Model.
- Collected data on imports, exports, and transportation costs for 137 countries, and graphed and analyzed the data using Excel and R.
- Measured the distances among important ports using PortDistance and Google Earth.
- Proofread and formatted documents for publication and disseminated materials for various audiences.
- Answered incoming inquiries and assisted with the planning and execution of weekly events.

TEACHING EXPERIENCE

Southern Methodist University, Dallas, TX, 2019-2024

Teaching Assistant, Department of Economics

- Financial Economics and Investment Behavior: Spring 2021, Fall 2021, Fall 2023
- International Macroeconomic Theory and Policy: Spring 2021, Fall 2021, Spring 2022, Spring 2024
- Microeconomic Theory I: Fall 2020
- Strategic Behavior: Fall 2020
- Introductory Econometrics: Spring 2020, Spring 2021, Fall 2021, Fall 2023

Minzu University of China, Beijing, China, 2022

Guest Lecturer of GIS Technology, Department of Economics

- Introduced the application of Geographic Information System (GIS) technology in economic research to 32 undergraduate and graduate students from Department of Economics, Minzu University of China.
- Introduced ManeFrame II high-performance computing (HPC) cluster.
- Taught students how to obtain China's daily county-level PM2.5 data from NASA's MERRA-2 product using Python, R, QGIS, and ArcGIS.

CONFERENCE PRESENTATIONS

Li, Weihong, "Pollution, Promotion, and Political Showcase," Southern Economic Association 94th Annual Meeting, Washington D.C. (*expected* Nov 2024)

Li, Weihong, "Pollution, Promotion, and Political Showcase," SMU Brownbag, Dallas, TX (Oct 2024)

Li, Weihong, "Pollution, Promotion, and Political Showcase," TEXPOP Conference, Austin, TX (May 2024)

Li, Weihong, "Cultural Norms, Fertility, and Missing Women: Evidence from the Ghost Festival," Southern Economic Association 93rd Annual Meeting, New Orleans, LA (Nov 2023)

Li, Weihong, "Cultural Norms, Fertility, and Missing Women: Evidence from the Ghost Festival," Chinese Economists Society 2023 North America Conference, Norman, OK (April 2023)

Li, Weihong, "Cultural Norms, Fertility, and Missing Women: Evidence from the Ghost Festival," Committee on the Status of Women in the Economics Profession (CSWEP) Mentoring Workshop for Women/Non-Binary Economics PhD Students, Fort Lauderdale, FL (Nov 2022)

SKILLS

- **Software:** Stata, R, Python, MATLAB, QGIS, ArcGIS, HTML, CSS, LaTeX, Excel, PowerPoint, Word
- **Languages:** English (Fluent), Chinese (Native), Mongolian (Basic), Russian (Basic), Spanish (Basic)

LEADERSHIP & CAMPUS INVOLVEMENT

SMU Economics Club, Dallas, TX, 2020-2025

Active Member

- Assist in organizing and coordinating club activities, including workshops, picnics, and festival celebrations.

UW-Madison Archery Club, Madison, WI, 2019

Member

- Learned the history, rules, and techniques of archery and attended practice twice a week.

UW-Madison Math Club, Madison, WI, 2015-2019

Member

- Invited professors to give weekly presentations about their research and attended presentations to learn more about math research topics and issues.
- Helped up to 8 students weekly with math homework.

UW-Madison WUD Global Connection, Madison, WI, 2015-2019

Member

- Met students from across the globe and learned about diverse cultures by attending weekly guest lectures.

REFERENCES

Klaus Desmet (Chair)

Professor of Economics

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